WHAT IS CLAIMED IS:

1. An accommodating intraocular lens for implantation in an eye having a lens capsule and an optical axis, said lens comprising:

an anterior portion comprised of a viewing element, said viewing element comprised of an optic having refractive power;

a posterior portion comprised of a viewing element, said viewing elements mounted to move relative to each other along the optical axis in response to force generated by the ciliary muscle of the eye;

a distending portion comprised of a first distending member having a fixed end attached to one of the anterior portion and the posterior portion, and a free end sized and oriented to distend a portion of the lens capsule such that coupling of forces between the lens capsule and the intraocular lens is modified by said distending portion.

2. The lens of Claim 1, wherein said distending portion further comprises a second distending member having a fixed end attached to one of the anterior portion and the posterior portion, and a free end sized and oriented to distend a portion of the lens capsule.

3. The lens of Claim 2, wherein:

said lens includes an optical axis which is adapted to be substantially coincident with the optical axis of the eye upon implantation of said lens; and

said first and second distending portions are attached to said viewing element of said posterior portion and are arranged 180 degrees apart about said optical axis of said lens.

4. The lens of Claim 1, wherein said first distending member further comprises an opening to permit cellular ingrowth by adjacent portions of the lens capsule.

5. The lens of Claim 1, wherein:

said lens includes an optical axis which is adapted to be substantially coincident with the optical axis of the eye upon implantation of said lens;

said anterior portion further comprises an anterior biasing element and said posterior portion further comprises a posterior biasing element, said biasing elements being joined at first and second apices which are spaced from said optical axis of said lens; and

said first distending member is located angularly midway between said apices about said optical axis of said lens.

6. The lens of Claim 5, wherein:

said distending portion further comprises a second distending member having a fixed end attached to one of the anterior portion and the posterior portion, and a free end sized and oriented to distend a portion of the lens capsule; and

said second distending member is located angularly midway between said apices about said optical axis of said lens and is arranged 180 degrees away from said first distending member about said optical axis of said lens.

7. The lens of Claim 1, wherein:

said lens includes an optical axis which is adapted to be substantially coincident with the optical axis of the eye upon implantation of said lens; and

said free end of said first distending member is adapted to remain at a substantially constant distance from said optical axis as said viewing elements move relative to each other.

8. The lens of Claim 1, wherein:

said lens includes an optical axis which is adapted to be substantially coincident with the optical axis of the eye upon implantation of said lens;

said anterior portion further comprises an anterior biasing element and said posterior portion further comprises a posterior biasing element, said biasing elements being joined at first and second apices which are spaced from said optical axis of said lens; and

said lens further comprises at least one rim member extending from one of said first and second apices to said free end of said first distending member.

9. The lens of Claim 8, wherein:

said distending portion further comprises a second distending member having a fixed end attached to one of the anterior portion and the posterior portion, and a free end sized and oriented to distend a portion of the lens capsule; and

said lens further comprises at least one rim member extending from one of said first and second apices to said free end of said second distending member.

10. The lens of Claim 9, further comprising rim members extending from said first apex to said free ends of said first and second distending members, and from said second apex to said free ends of said first and second distending members.

11. An accommodating intraocular lens for implantation in an eye having an optical axis, said lens comprising:

an anterior portion comprised of an anterior viewing element and an anterior biasing element connected to said anterior viewing element, said anterior viewing element comprised of an optic having refractive power;

a posterior portion comprised of a posterior viewing element and a posterior biasing element connected to said posterior viewing element;

an optical axis of said lens which is adapted to be substantially coincident with the optical axis of the eye upon implantation of said lens;

said anterior and posterior viewing elements mounted to move relative to each other along the optical axis in response to force generated by the ciliary muscle of the eye, said biasing elements being joined at first and second apices which are spaced from said optical axis of said lens;

a distending member extending between said first and second apices.

12. The lens of Claim 11, wherein said distending member comprises an arcuate portion extending between said first and second apices.

13. The lens of Claim 12, wherein said distending member comprises first and second arcuate portions extending between said first and second apices on either side of said lens.

14. The lens of Claim 13, wherein said first and second arcuate portions define a width of said lens and said first and second apices defining a height of said lens, said width being larger than said height.

15. An accommodating intraocular lens for implantation in an eye having a lens capsule and an optical axis, said lens comprising:

an anterior portion comprised of a viewing element, said viewing element comprised of an optic having refractive power;

a posterior portion comprised of a viewing element, said viewing elements mounted to move relative to each other along the optical axis in response to force generated by the ciliary muscle of the eye;

a distending portion comprised of a distending member attached to one of said portions, and oriented to distend the lens capsule such that the distance between a posterior side of the posterior viewing element and an anterior side of the anterior viewing element along the optical axis is less than 3 mm when the ciliary muscle is relaxed and the lens is in an unaccommodated state.

16. An accommodating intraocular lens for implantation in an eye having a lens capsule and an optical axis, said lens comprising:

an anterior portion comprised of a viewing element, said viewing element comprised of an optic having refractive power;

a posterior portion comprised of a viewing element, said viewing elements mounted to move relative to each other along the optical axis in response to force generated by the ciliary muscle of the eye;

a distending portion comprised of a distending member attached to one of said portions, and oriented to distend the lens capsule, said distending causing said lens capsule to act on at least one of the posterior and anterior portions such that separation between said viewing elements is reduced when the ciliary muscle is relaxed and the lens is in an unaccommodated state.

17. An accommodating intraocular lens for implantation in an eye having a lens capsule and an optical axis, said lens comprising:

an anterior portion comprised of a viewing element, said viewing element comprised of an optic having refractive power;

a posterior portion comprised of a viewing element, said viewing elements mounted to move relative to each other along the optical axis in response to force generated by the ciliary muscle of the eye;

a distending member attached to the posterior portion, said distending member separate from said biasing members and reshaping the lens capsule such that force coupling between the ciliary muscle and the lens is modified to provide greater relative movement between said viewing elements when the lens moves between an unaccommodated state and an accommodated state in response to said ciliary muscle.

18. An accommodating intraocular lens for implantation in an eye having an optical axis, said lens comprising:

an anterior portion comprised of an anterior viewing element and an anterior biasing element connected to said anterior viewing element, said anterior viewing element comprised of an optic having refractive power;

a posterior portion comprised of a posterior viewing element and a posterior biasing element connected to said posterior viewing element;

an optical axis of said lens which is adapted to be substantially coincident with the optical axis of the eye upon implantation of said lens;

said anterior and posterior viewing elements mounted to move relative to each other along the optical axis in response to force generated by the ciliary muscle of the

eye, said biasing elements being joined at first and second apices which are spaced from said optical axis of said lens;

first and second distending members, each of said members attached to one of said anterior and posterior portions and extending away from the optical axis, said first member disposed between said apices on one side of the intraocular lens and said second member disposed between said apices on the opposite side of the intraocular lens, said distending members oriented to distend portions of the lens capsule such that said viewing elements are relatively movable through a range of at least 1.0 mm in response to contraction of said ciliary muscle.

19. An accommodating intraocular lens for implantation in an eye having an optical axis, said lens comprising:

an anterior portion comprised of a viewing element, said anterior viewing element comprised of an optic having a diameter of approximately 3 mm or less and a refractive power of less than 55 diopters;

a posterior portion comprised of a viewing element, said viewing elements mounted to move relative to each other along the optical axis in response to force generated by the ciliary muscle of the eye;

a distending portion comprised of a distending member having a fixed end attached to the posterior portion and a free end sized and oriented to distend a portion of the lens capsule such that coupling of forces between the lens capsule and the intraocular lens is increased.

20. A method comprising:

implanting an accommodating intraocular lens having anterior and posterior portions that are biased apart, said implanting comprising placing said lens in a lens capsule of an eye and reshaping the lens capsule by applying a distending force thereto, said reshaping comprising tensioning at least a portion of the capsular membrane to cause the capsule to draw the anterior and posterior portions towards each other at least when the ciliary muscle of the eye is relaxed and the accommodating lens is in an unaccommodated state.

21. The method of Claim 20, wherein said tensioning comprises applying a distending force only to the posterior side of the lens capsule.